

KOREAN UTILITY MODEL REGISTRATION NO. 20-357406

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OWNER OF UTILITY MODEL: Park, Chan-Hee (57-29, Singal-ri, Kiheung-eup, Kyungki-do, Korea)
INVENTOR: Park, Chan-Hee (57-29, Singal-ri, Kiheung-eup, Kyungki-do, Korea)
TITLE OF THE INVENTION: EAR WARMER WITH ELASTIC BAND FOR PROTECTION AGAINST COLDNESS

ABSTRACT

The present device is generally directed to an ear warmer for protection against coldness, and more particularly to an ear warmer for protection against coldness in which an elastic band for holding an ear inside an ear covering portion is provided so that the ear warmer does not slip down from the ear during use and corrosion is semi-permanently prevented by metal-plating a metal wire inserted inside the ear warmer. As such, the durability is enhanced through binding an end portion of a connecting portion wire and an end portion of an ear covering portion wire with a metal binding means.

Representative Drawing

FIG. 1

Searching indices:

ear warmer, ear covering portion, connecting portion, metal wire, metal-plating, metal binding means

KOREAN UTILITY MODEL REGISTRATION NO. 20-357406**SPECIFICATION****BRIEF DESCRIPTION OF THE DRAWINGS**

Fig. 1 is a perspective view illustrating an ear warmer with elastic bands adapted to protect against coldness and constructed in accordance with the present invention.

Fig. 2 is a perspective view showing a metal wire to be inserted in the ear warmer with elastic bands of the present invention.

Fig. 3 is a side view showing an embodiment of a metal binding portion of metal wire.

Fig. 4 is shows an embodiment wherein the ear warmer with elastic bands is fixed on an ear.

Fig. 5 is a perspective view showing a metal wire to be inserted in a prior art ear warmer adapted to protect against coldness.

DESCRIPTION OF SYMBOLS FOR ESSENTIAL PARTS OF DRAWINGS

100:ear covering portion
200:connecting portion
300:metal wire
310:connecting portion wire
320: ear covering portion wire
A: metal binding portion
330: metal binding means
315:end portion of connecting portion wire
325:end portion of ear covering portion wire
400:elastic band

DETAILED DESCRIPTION OF THE PRESENT INVENTION**OBJECT OF THE PRESENT INVENTION****TECHNICAL FIELD OF THE PRESENT INVENTION AND PRIOR ART THEREOF**

The present invention is generally directed to an ear warmer for protection against coldness, and more particularly to an ear warmer for protection against coldness wherein an elastic band for holding an ear inside an ear covering portion is provided such that the ear warmer does not slip down from the ear during use and corrosion is semi-permanently prevented by metal-plating a metal wire inserted as an elastic storing member. As such, the durability of a metal wire binding region and stability during wearing are enhanced through binding an end portion of a connecting portion wire and an end portion of an ear covering portion wire with a metal binding means.

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In the conventional ear warmer for protection against coldness, the ear warmer is kept from slipping down when contacting an ear covering portion to an ear. This depends upon the elastic restoring power of a metal wire inserted inside the ear warmer or any other equivalent thereof. However, when such method, which depends on the elastic restoring power, is used, the following problem exists. More specifically, the ear warmer often separates from an ear in case of an intense exercise such as running. If stronger elasticity is employed such that the ear warmer does not slip down from the ear, then the pressure applied on the ear is stronger. Further, in the conventional ear warmer for protection against coldness having a metal wire, a metal wire is coated with a soft tube made from rubber, PVC material and the like. This is to prevent the exposure of the metal wire, thereby increasing the wearing comfort while preventing injury and corrosion. However, since the soft tube region is often easily damaged and thus exposes the metal wire so that the metal wire easily corrodes and rusts, the outer shell of the ear warmer tends to get rusty and damaged. Moreover, when the metal wire is separated, the wearer tends to get hurt by the end portion of a sharp metal wire. Further, an end portion of a connecting portion wire and an end portion of an ear covering portion wire are bound to form a contact region. This is typically accomplished by using an adhesive and the like between the soft tubes covering the wire. As such, it becomes easily separated due to its poor durability and the end portion of the wire exposed from the soft tube often injures the head of the wearer.

TECHNICAL PROBLEMS TO BE SOLVED BY THE PRESENT INVENTION

The present invention is developed to address and resolve the above-mentioned problems of the prior art. In accordance with the present invention, the ear warmer is maintained on the ear without slipping down from the ear at any event. Further, a soft tube covering a metal wire is removed, the corrosion of a metal wire is semi-permanently prevented, the durability of metal wire binding portion and wearing stability are enhanced, and the wearing comfort and warmth-keeping effect of the ear warmer are improved.

THE CONSTITUTION AND FUNCTIONS OF THE PRESENT INVENTION

In order to solve the above technical problems, in the present ear warmer having an ear covering portion on the left and right sides of a band type connecting portion, (1) an elastic band inside an ear covering portion, which is arranged in a convenient angle and lengthened for holding the ear, is provided so that the ear warmer does not slip down from the ear during use, (2) a metal wire along the outer shape of an ear warmer is metal-plated, and (3) a metal binding portion, which binds an end portion of a connecting portion wire and an end portion of an ear covering portion wire with a metal binding means, is provided.

The present device will be described in detail by referring to Figs. 1 to 5.

Fig. 1 is a perspective view illustrating an ear warmer with elastic bands adapted to protect

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against coldness and constructed in accordance with the present invention. Ear covering portions (100), which cover the ears to keep warmth of each ear and located at both sides of the ear warmer, are connected via a connecting portion (200), as illustrated in the drawings. An elastic band (400) is provided inside an ear covering portion (100) and extends across the inner portion of the ear covering portion. The elastic band (400) is arranged in a convenient angle and length suitable for holding its respective ear. For convenience sake, only left elastic band is illustrated in the drawing. However, it should be noted that the elastic bands are provided at both sides of ear covering portion. A metal wire (300) is inserted into the inner edge along the outer shape.

Fig. 2 is a perspective view specifically showing a metal wire (300) inserted in the present ear warmer adapted to protect against coldness. A connecting portion wire (310), which is a wire portion at a connecting portion of an ear warmer, and an ear covering portion wire (320), which is a wire portion at an ear covering portion, are consisted of a single wire as an integral type. A metal wire (300) comprises a metal-binding portion (A) wherein an end portion of the connecting portion wire (310) and an end portion of the ear covering portion wire (320) are bound by a metal binding means (330). On the other hand, the above metal wire (300) is metal-plated, preferably zinc-plated, to semi-permanently prevent corrosion.

Fig. 3 is a side view showing an embodiment of a metal connecting portion (A). As indicated in the drawing, a wire in a solenoid-shape (i.e., metal binding means (330)) winds an end portion of a connecting portion wire (315) and an end portion of an ear covering portion wire (325) in a parallel direction, thereby directly and tightly binding the wires.

Fig. 4 shows an embodiment wherein an ear warmer is fixed on an ear by using an elastic band (400). As shown in the drawing, when an ear warmer is held on an ear by fixing an elastic band (400) across the backside of the upper portion of an ear, the ear warmer does not separate from the ear even in case of an intense exercise such as running.

On the other hand, Fig. 5 illustrates a metal wire inserted in a conventional ear warmer for protection against coldness. In a conventional ear warmer for cold protection, a metal wire (300) is covered with a soft tube (5) made from rubber, PVC and the like so as to prevent corrosion and improve wearing comfort. However, in this method, the soft tube (500) is vulnerable and easily damaged by friction or bending to form holes. Some foreign substances such as moisture (e.g., wearer's sweat) may enter into the holes. For this reason, the metal wire (300) easily corrodes and is weakened. As such, the rust can spread out from the damaged portion of the soft tube (500) to soak the outer shell, thereby deteriorating the outer shell. Further, in a conventional ear warmer employing a soft tube (500), an end portion of the connecting portion wire (315) and an end portion of the ear covering portion (325) are connected via the soft tube (500) by an adhesive and the like. Thus, the inner wires are not directly bound and can easily separate due to weak durability. Further, the sharp metal wire (300) is exposed between the soft tube (500) and can injure the wearer.

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In order to solve the above problems, as described above, instead of deriving a corrosion prevention device via a soft tube (500) covering a metal wire (300), the present invention removes useless soft tubes by metal-plating, preferably zinc plating the metal wire (300) so as to provide semi-permanent prevention of corrosion. Further, an end portion of the connecting portion wire (315) and an end portion of the ear covering portion wire (325) are directly bound via metal binding means (330) instead of binding the soft tubes by using adhesive and the like, thereby improving the durability.

On the other hand, the above-mentioned embodiment and drawings are described for the detailed illustration of the present device only, and not intended to limit the technical scope of the present device. Further, it will be apparent to one skilled in the art that many other substitution, variations and modifications are possible without departing from the technical gist of the present device, and the following claims as well as equivalents thereof should be considered within the scope and spirit of this invention.

EFFECT OF DEVICE

As described above, in accordance with the present invention, an ear warmer is fixed on ears without slipping down from the ears even in an intense exercise, a soft tube is removed, the corrosion of a metal wire is semi-permanently prevented, the durability of metal wire binding portion and wearing stability are significantly enhanced.

CLAIMS

1. An ear warmer with an elastic band for protection against coldness having an ear covering portion on left and right sides of a band type connecting portion, characterized in that the ear warmer comprises an elastic band inside the ear covering portion in a convenient angle and length adapted for holding ear such that the ear warmer does not slip down from the ear during use.
2. An ear warmer with an elastic band of Claim 1, characterized in that said elastic band is a band wherein a plurality of thin rubber strings are inserted inside a cloth material.
3. An ear warmer with an elastic band of Claim 1 or 2, characterized by comprising an integral type metal wire in an inner edge along an outer configuration of the ear warmer, the metal wire is metal-plated so as to prevent corrosion, an end portion of a connecting portion wire and an end portion of ear covering portion wire are bound by a metal binding portion.

DRAWINGS

(Omitted)

탄성밴드를 구비한 방한용 귀마개

박찬희

2004. 03. 19.

실용신안등록출원 20-2004-0007722

박 찬 희

특수법인 새기 등록번호

출력 일자: 2004/3/22

수신 : 경기도 성남시 분당구 서현동 238-2 이랜드
드림라자 3층(새김특허법률사무소)

신영건 귀하

463-824

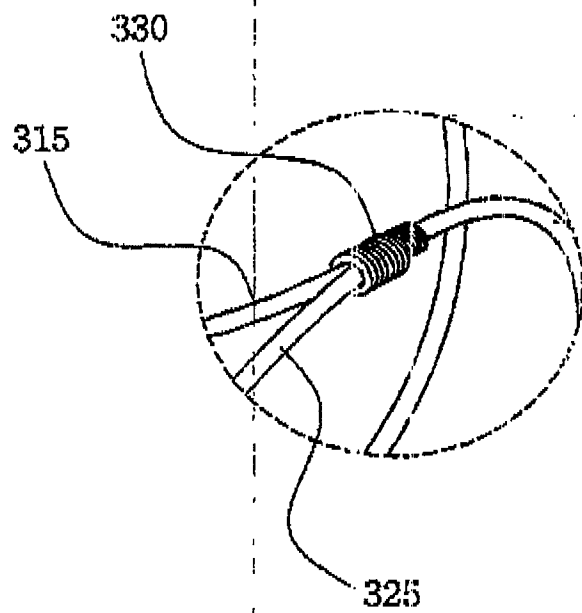
관인생략 출원번호통지서

출 ! 일자 2004.03.19
특 ! 사항 참조번호()
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특 허 청 장

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9. 특허출원 10-2001-0000001, 실용신안등록출원 10-2001-0000001, 의장통독출원 30-2001-0000001, 통독출원 40-2001-0000001
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11. 특허청주소) 302-701 대전광역시 서구 은산동 920 정부대전청사 4층
특청 서문사무소 주소) 135-811 서울특별시 강남구 역삼동 647-9 한국지식센터
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【도 3】



【도 4】

